In the claims:

1. A method of compensating for distortion at an edge of an image during image processing, said method comprising:

detecting the edge in the image; and

sharpening the detected edge, wherein the degree of sharpening is directly proportional to a degree of distortion in the image.

2. A method according to claim 1, wherein the step of detecting an edge in the image includes:

defining a first context and a second context for two adjacent pixels in the image, wherein said two adjacent pixels comprise a first pixel and a second pixel, and wherein said first context comprises a set of pixels located immediately adjacent to said first pixel in a first direction, and said second context comprises a set of pixels located immediately adjacent to the second pixel in a second direction;

measuring an average intensity value of the first context and an average intensity value of the second context;

computing a difference value by subtracting the average intensity value of the first context from the average intensity value of the second context;

determining whether the first and second pixel comprise an edge by examining the difference value.

3. A method according to claim 2, wherein the step of determining whether the first and second pixel comprise an edge includes:

establishing a first threshold value and a second threshold value, wherein the second threshold value is greater than or equal to the first threshold value;

calculating a magnitude value by taking the square of the difference value;

comparing the magnitude value to the first threshold value and the second threshold value;

assigning a gain value based upon the magnitude value.

4. A method according to claim 3, wherein the gain value is set as zero if the magnitude value is less than both the first and second threshold level, the gain value is set as a positive number if the magnitude value is between the first threshold value and the second threshold value, and the gain value is set as a negative number if the magnitude value is greater than the second threshold value.

5. A method according to claim 4, wherein the step of sharpening includes adjusting the value of the first pixel and the second pixel in opposite direction, wherein
   the first pixel is adjusted by adding to the first pixel value the product of the gain value multiplied by the difference value, and subsequently subtracting the product of a previous gain value and a previous difference value for a pixel pair that precedes the first pixel in the first direction; and
   the second pixel is adjusted by subtracting from the second pixel value the product of the gain value multiplied by the difference value, and subsequently adding the product of the previous gain value and the previous difference value.

6. A method according to claim 3 wherein the first context and the second context are four pixels wide.

7. A method according to claim 3 wherein the first context overlaps and includes the first pixel and the second context overlaps and includes the second pixel.

8. A method according to claim 3 wherein the first context is contiguous with the first context and the second context is contiguous with the second pixel.

9. A method according to claim 3, wherein:
   the first pixel is a left pixel;
   the second pixel is a right pixel;
   the first direction is to the left of the two adjacent pixels;
   the second direction is to the right of the two adjacent pixels;

10. A method according to claim 3, wherein:

the first pixel is a top pixel;

the second pixel is a bottom pixel;

the first direction is above the two adjacent pixels;

the second direction is below the two adjacent pixels;